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EXAMINER	
CHOW, CHARLES CHIANG	
ART UNIT	PAPER NUMBER
2618	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/810,433	HOO ET AL.	
	Examiner	Art Unit	
	CHARLES CHOW	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 July 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33 and 36-50* is/are pending in the application.

4a) Of the above claim(s) *34 and 35* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33 and 36-50* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

1. This office action is for the amendment filed on 7/18/2008.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 36-38, 41-43, 46-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Hurley et al. [US 6,891,909 B2].

For claim 36, Hurley et al. [Hurley] teaches a method for controlling an antenna system [method in summary of invention, Fig. 3, Fig. 1 to Fig. 4 & its description in the specification], the method comprising:

collecting information associated with a plurality of frames received by a portion of a plurality of antennas

[receiving packets in time periods for each antenna, col. 6, line 56 to col. 7, line 17; collecting samples for four times & adding to total calculated power in step 7 col. 7, lines 49-53; greater than one frame in col. 2, lines 54-64; receiving 125 packets per second from transmitter in col. 3, lines 49-57];

computing a weighted average value over a determined number of said received plurality of frames for each of said portion of said plurality of antennas based on said collected information

[at step 8, to perform steps 3-7 for each antenna & calculating weighted averaged of power level for each antenna in col. 7, line 55 col. 8, line 5; col. 7, lines 18-20]; and

selecting one or more candidate starting antennas from said portion of said plurality of antennas based on said plurality of computed weighted average values

[determining the antenna field with highest weighted average, as the starting antenna, to be used for demodulation of the incoming packets in next cycle].

For claims 37, 42, 47, Hurley teaches wherein said weighted average value is a weighted average of received signal power values [col. 7, line 49 to col. 8, line 5].

For claims 38, 43, 48, Hurley further teaches the computing said weighted average value based on a plurality of distinct weighting factors [weighed over a plurality of cycles in Hurley's claim 7; weighted heavily for current cycle than any preceding cycle in Hurley's claim 8].

For claim 41, Hurley teaches a computer readable medium having stored thereon [the DSP 42 has internal memory, PLD 18 in col. 6, lines 25-42],

a computer program having at least one code section for controlling an antenna system, the at least one code section being executable by a computer for causing the computer to perform steps [DSP 42 is programmed to perform the steps 1-8 in col. 7, lines 18-20] comprising:

collecting information associated with a plurality of frames received by a portion of a plurality of antennas [receiving packets in time periods for each antenna, col. 6, line 56 to col. 7, line 17; collecting samples for four times & adding to total calculated power in step 7 col. 7, lines 49-53; greater than one frame in col. 2, lines 54-64; receiving 125 packets per second from transmitter in col. 3, lines 49-57];

computing a weighted average value over a determined number of said received plurality of frames for each of said portion of said plurality of antennas based on said collected information [at step 8, to perform steps 3-7 for each antenna & calculating weighted averaged of power level for each antenna in col. 7, line 55 col. 8, line 5; col. 7, lines 18-20]; and

selecting one or more candidate starting antennas from said portion of said plurality of antennas based on said plurality of computed weighted average values

[determining the antenna field with highest weighted average, as the starting antenna, to be used for demodulation of the incoming packets in next cycle].

For claim 46, Hurley teaches a system for controlling an antenna system [Fig. 3, Fig. 1 to Fig. 4 & its description in the specification, abstract], the system comprising:

at least one processor [antennas amplifiers 22/ switch 26/ baseband I/O & DSP 42, Fig. 3] that enables collection of information associated with a plurality of frames received by a portion of a plurality of antennas [receiving packets in time periods for each antenna, col. 6, line 56 to col. 7, line 17; collecting samples for four times & adding to total calculated power in step 7 col. 7, lines 49-53; greater than one frame in col. 2, lines 54-64; receiving 125 packets per second from transmitter in col. 3, lines 49-57];

said at least one processor [DSP 42] enables computation of a weighted average value over a determined number of said received plurality of frames for each of said portion of said plurality of antennas based on said collected information [[at step 8, to perform steps 3-7 for each antenna & calculating weighted averaged of power level for each antenna in col. 7, line 55 col. 8, line 5; col. 7, lines 18-20]; and

said at least one processor [42/switch 26] enables selection of one or more candidate starting antennas from said portion of said plurality of antennas based on said plurality of

computed weighted average values [determining the antenna field with highest weighted average, as the starting antenna, to be used for demodulation of the incoming packets in next cycle].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-7, 12-18, 23-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hurley in view of Shinoda [JP-20040007145] and Todd [US 6,118,773].

For claim 1, Hurley teaches a method for controlling an antenna system [method in summary of invention, Fig. 3, Fig. 1 to Fig. 4 & its description in the specification], the method comprising:

collecting information associated with a plurality of frames received by a portion of a plurality of antennas

[receiving packets in time periods for each antenna, col. 6, line 56 to col. 7, line 17; collecting samples for four times & adding to total calculated power in step 7 col. 7, lines 49-53; greater than one frame in col. 2, lines 54-64; receiving 125 packets per second from transmitter in col. 3, lines 49-57];

selecting a receiving antenna from said portion of said plurality of antennas for each one of said received plurality of frames

[repeating steps 4-6 four times for collecting packet samples for each antenna, in step 7, col. 7, lines 49-53; frames in col. 2, lines 57-63]

determining a selection value [determining which antenna is best in col. 7, 56-60, with weighted power average, as selection value, col. 7, lines 55-63] for each one of said portion of said plurality of antennas [determining which antenna field is the best, for having the highest weighted average, col. 7, lines 554-65] based on the number of instances [bit error in col. 8, lines 6-9 & weighted average of power level in col. 7, line 54 to col. 8, line 5] that said each one of said portion of said plurality of antennas is selected as said receiving antenna over a determined number of said received plurality of frames [repeating sampling packets for four times for each antenna col. 7, lines 49-53]; and

Hurley fails to teach the selection index value.

Shinoda teaches the selection index value and selecting one or more candidate starting antennas by comparing each of said plurality of selection index values

[selecting antenna based on the index value V, to judge the antenna selection in paragraph 0005-00011; the index value is receiving intensity, or agc gain or error rate of thee received signal in paragraph 0010; & its description of first embodiment starting from paragraph 0014; memorizing index value V & comparing with threshold in paragraph 0020-0026], in order to judge the best reception antenna with the index value, field intensity, or agc gain or error rate. Therefore, one of ordinary skill in the art at the time of invention would be obviously anxious to improve Hurley with Shinoda 's teachings above, such that the reception could be good by comparing the index value to select an antenna.

Hurley, Shinoda fail to teach the selecting one or more candidate starting antennas by comparing values to a majority polling threshold value

Todd teaches the selecting one or more candidate starting antennas by comparing values to a majority polling threshold value [comparing threshold 20, & increment hyteresis count step 440, & comparing hyteresis count with M, for the majority polling in Fig. 4b & its

description in the specification], in order to reliably select one antenna with threshold & hysteresis count. Therefore, one of ordinary skill in the art at the time of invention would be obviously anxious to improve Hurley, Shinoda with Todd's teachings above, such that the antenna could be reliably selected by comparing with the threshold & hysteresis count.

For claims 2, 13, 24, Hurley in view of Shinoda fails to teach the increasing majority polling threshold.

Todd teaches the increasing said majority polling threshold value until a single candidate starting antenna is selected by said comparing [the adjustable M, 0 to 255, sequential half frames due to frequency/fading in col. 8, lines 18-24/col. 7, line 24; the greater BER for M consecutive half frames in col. 6, lines 32-49; the comparing the majority-polling-hysteresis-count Cnt with M in steps 446/449, in Fig, 4b, for the selecting of one antenna in the loop shown in Fig. 4a to Fig. 4d], antenna selection can have adjustable hysteresis threshold based on frequency/fading. Therefore, one of ordinary skill in the art at the time of invention would be obviously anxious to improve Hurley, Shinoda with Todd's teachings above, such hysteresis threshold could be adjustable based on the frequency/fading.

For claims 3, 14, 25, Hurley in view of Shinoda fails to teach the decreasing majority polling threshold.

Todd teaches the decreasing said majority polling threshold value until a single candidate starting antenna is selected by said comparing [the adjustable M, 0 to 255, sequential half frames due to frequency/fading in col. 8, lines 18-24/col. 7, line 24; the greater BER for M consecutive half frames in col. 6, lines 32-49; the comparing the majority-polling-hysteresis-count Cnt with M in steps 446/449, in Fig, 4b; the loop shown in Fig. 4a to Fig. 4d], Therefore, one of ordinary skill in the art at the time of invention would be

obviously anxious to improve Hurley, Shinoda with Todd's teachings above, such hysteresis threshold could be adjustable.

For claims 4, 15, 26, Hurley teaches the selecting one starting antenna from said one or more candidate starting antennas [antenna 22 for field A-D in Fig. 3].

For claims 5, 16, 27, Hurley teaches the dwelling on said selected one starting antenna to detect a received signal [the repeating collecting packet samples 4 times for each antenna, col. 7, lines 49-65].

For claims 6, 17, 28, Hurley teaches the determining an estimated power level for said received signal during said dwelling on said selected one starting antenna [calculate total power for each antenna, col. 7, lines 49-65].

For claims 7, 18, 29, Hurley teaches the determining a gain level by performing automatic gain control during said dwelling on said selected one starting antenna [for each antenna, to receive/process packets for four times in steps 4-6, col. 7, lines 49-52/col. 7, lines 17-48].

For claim 12, Hurley teaches a computer readable medium having stored thereon [the internal memory in DSP 42, col. 6, lines 25-34], a computer program having at least one code section for controlling an antenna system [the DSP 42 is programmed to performs steps 1-8, col. 7, line 18 to col. 8, line 5; selecting antenna of highest weighted average power level, col. 7, lines 55-65],

the at least one code section being executable by a computer [DSP 42 executes program to perform steps 1-7, col. 7, lines 21-65] for causing the computer to perform steps comprising

collecting information associated with plurality of frames received by a portion of a plurality of antennas [receiving packets in time periods for each antenna, col. 6, line 56 to

col. 7, line 17; collecting samples for four times & adding to total calculated power in step 7 col. 7, lines 49-53; greater than one frame in col. 2, lines 54-64; receiving 125 packets per second from transmitter in col. 3, lines 49-57];

selecting a receiving antenna from said portion of said plurality of antennas for each one of said received plurality of frames [repeating steps 4-6 four times for collecting packet samples for each antenna, in step 7, col. 7, lines 49-53; frames in col. 2, lines 57-63];

determining a selection value [determining which antenna is best in col. 7, 56-60, with weighted power average, as selection value, col. 7, lines 55-63] for each one of said portion of said plurality of antennas [determining which antenna field is the best, for having the highest weighted average, col. 7, lines 554-65] based on the number of instances [bit error in col. 8, lines 6-9 & weighted average of power level in col. 7, line 54 to col. 8, line 5] that said each one of said portion of said plurality of antennas is selected as said receiving antenna over a determined number of said received plurality of frames [repeating sampling packets for four times for each antenna col. 7, lines 49-53].

Hurley fails to teach the selection index value.

Shinoda teaches the selection index value and selecting one or more candidate starting antennas by comparing each of said plurality of selection index values

[selecting antenna based on the index value V, to judge the antenna selection in paragraph 0005-00011; the index value is receiving intensity, or agc gain or error rate of thee received signal in paragraph 0010; & its description of first embodiment starting from paragraph 0014; memorizing index value V & comparing with threshold in paragraph 0020-0026], in order to judge the best reception antenna with the index value, field intensity, or agc gain or error rate. Therefore, one of ordinary skill in the art at the time of invention would

be obviously anxious to improve Hurley with Shinoda 's teachings above, such that the reception could be good by comparing the index value to select an antenna.

Hurley, Shinoda fail to teach the selecting one or more candidate starting antennas by comparing values to a majority polling threshold value

Todd teaches the selecting one or more candidate starting antennas by comparing values to a majority polling threshold value [comparing threshold 20, & increment hyteresis count step 440, & comparing hyteresis count with M, for the majority polling in Fig. 4b & its description in the specification], in order to reliably select one antenna with threshold & hysteresis count. Therefore, one of ordinary skill in the art at the time of invention would be obviously anxious to improve Hurley, Shinoda with Todd's teachings above, such that the antenna could be reliably selected by comparing with the threshold & hysteresis count.

For claim 23, Hurley teaches a system for controlling an antenna system [Fig. 3 & its description in the specification & steps in col. 7, line 18 to col. 8, line 5], the system comprising

at least one processor [DSP 42] that enables collection of information associated with plurality of frames received by a portion of a plurality of antennas

[receiving packets in time periods for each antenna, col. 6, line 56 to col. 7, line 17; collecting samples for four times & adding to total calculated power in step 7 col. 7, lines 49-53; greater than one frame in col. 2, lines 54-64; receiving 125 packets per second from transmitter in col. 3, lines 49-57];

said at least one processor [DSP 42] enables selection of a receiving antenna from said portion of said plurality of antennas for each one of said received plurality of frames

[repeating steps 4-6 four times for collecting packet samples for each antenna, in step 7, col. 7, lines 49-53; frames in col. 2, lines 57-63];

said at least one processor [DSP 42] enables determining a selection value

[determining which antenna is best in col. 7, 56-60, with weighted power average, as selection value, col. 7, lines 55-63] for each one of said portion of said plurality of antennas [determining which antenna field is the best, for having the highest weighted average, col. 7, lines 554-65] based on the number of instances [bit error in col. 8, lines 6-9 & weighted average of power level in col. 7, line 54 to col. 8, line 5] that said each one of said portion of said plurality of antennas is selected as said receiving antenna over a determined number of said received plurality of frames [repeating sampling packets for four times for each antenna col. 7, lines 49-53].

Hurley fails to teach the selection index value.

Shinoda teaches the selection index value and said at least one processor enables selection of one or more candidate starting antennas by comparing each of said plurality of selection index values

[selecting antenna based on the index value V, to judge the antenna selection in paragraph 0005-00011; the index value is receiving intensity, or agc gain or error rate of thee received signal in paragraph 0010; & its description of first embodiment starting from paragraph 0014; memorizing index value V & comparing with threshold in paragraph 0020-0026], in order to judge the best reception antenna with the index value, field intensity, or agc gain or error rate. Therefore, one of ordinary skill in the art at the time of invention would be obviously anxious to improve Hurley with Shinoda 's teachings above, such that the reception could be good by comparing the index value to select an antenna.

Hurley, Shinoda fail to teach the selecting one or more candidate starting antennas by comparing values to a majority polling threshold value

Todd teaches the selecting one or more candidate starting antennas by comparing values to a majority polling threshold value [comparing threshold 20, & increment hyteresis count step 440, & comparing hyteresis count with M, for the majority polling in Fig. 4b & its description in the specification], in order to reliably select one antenna with threshold & hysteresis count. Therefore, one of ordinary skill in the art at the time of invention would be obviously anxious to improve Hurley, Shinoda with Todd's teachings above, such that the antenna could be reliably selected by comparing with the threshold & hysteresis count.

4. Claims 8, 19, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hurley in view of of Shinoda ,Todd, as applied to claim 1, 16, 27 above, and further in view of Tehrani et al. [US 2002/0164,963 A1].

For claims 8, 19, 30, Hurley in view of of Shinoda, Todd fail to teach the time insufficient to performing AGC.

Tehrani et al. [Tehrani] teach eth dwelling on a subsequent antenna selected from among a remaining portion of said portion of said plurality of antennas when a time duration for said dwelling on said subsequent antenna is insufficient to enable performing automatic gain control

[when time is preamble is short, the gain setting can be compromised, parag 0010], in order to maintain the over performance without degrading, caused by forcing the antenna selection into the short preamble time. Therefore, one of ordinary skill in the art at the time of invention would be obviously anxious to improve Hurley, Shinoda, Todd with Tehrani's teachings above, such that the over all performance could be maintained without forcing the antenna selection into the short preamble time.

5. Claims 9-10, 20-21, 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hurley in view of Todd, as applied to claims 8, 19, 30 above, and further in view of Adams et al. [US 2007/0129,034 A1].

For claims 9, 20, 31, Hurley teaches the computer medium with programming code as shown in claim 12 above. Hurley in view of of Shinoda, Todd fail to teach the power level based on the gain level during said time duration.

Adams et al. [Adams] teaches the determining an estimated power level for signals received during said time duration based on a determined gain level [measuring Rssi-IF, Rssi-BB, Rssi-lo based on the default gain setting in the duration of the measuring state 605, parag 0099; 200 nanoseconds in col. 1016], in order to measuring of the received signal power level based on a gain setting. Therefore, one of ordinary skill in the art at the time of invention would be obviously anxious to improve Hurley, Shinoda, Todd with Adams' teachings above, such that the power level measurement could be based on a gain setting.

For claims 10, 21, 32, Hurley teaches the computer medium with programming code as shown in claim 12 above. Hurley teaches the storing each said determined estimated power level that is measured at each selected one of said portion of said plurality of antennas [during the step 7, 8, col. 7, lines 49-65, the process stores total power for each antenna].

6. Claims 11, 22, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hurley in view of Todd, as applied to claim 10, 20, 32 above, and further in view of Adams et al. [US 2007/0129,034 A1].

For claims 11, 22, 33, Hurley teaches the computer medium with programming code as shown in claim 12 above; the selecting one of said portion of said plurality of antennas to receive a remaining portion of a current frame [selecting one antenna with highest weighted

average in col. 7, lines 54-65, from plurality antenna fields A-D in Fig. 3] based on said stored plurality of determined estimated power levels [based on stored calculated total power/weighted average power level for each antenna in col. 7, lines 49-65].

7. Claims 39-40, 44-45, 49-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hurley et al. [US 6,891,909 B2] in view of Usuda et al. [US 2006/0062,186 A1].

For claims 39-40, 44-45, 49-50, Hurley fails to teach the filter format.

Usuda et al. [Usuda] teaches computing the weighted average value based on a selected filter format; wherein said selected filter format is a finite impulse response filter and/or an infinite impulse response filter [averaging using FIR/IIR for calculating received power value in parag 0074], to provide quality communication via reliable signal level calculation with the FIR/IIR filter to remove the interference signal [parag 0068-0069]. Therefore, one of ordinary skill in the art at the time of invention would be obviously anxious to improve Hurley with Usuda's teachings above, such that the power values could be reliably calculated by using FIR/IIR filter to remove the interference signal.

Response to Arguments

8. Applicant's arguments with respect to claims 1-33, 36-50 have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant argument based upon the no teaching for the selecting a receiving antenna from said portion of said plurality of antennas for each one of said received plurality of frames; determining a selection index value for each one of said portion of said plurality of antennas based on the number of instances that said each one of said portion of said plurality of antennas is selected as said receiving antenna over a determined number of said received plurality of frames; and selecting one or more candidate starting antennas by

comparing each of said plurality of selection index values to a majority polling threshold value [such as in claim 1],

Hurley [US 6,891,901 B2] teaches the selecting a receiving antenna from said portion of said plurality of antennas for each one of said received plurality of frames

[repeating steps 4-6 four times for collecting packet samples for each antenna, in step 7, col. 7, lines 49-53; frames in col. 2, lines 57-63]

determining a selection value [determining which antenna is best in col. 7, 56-60, with weighted power average, as selection value, col. 7, lines 55-63] for each one of said portion of said plurality of antennas [determining which antenna field is the best, for having the highest weighted average, col. 7, lines 554-65] based on the number of instances [bit error in col. 8, lines 6-9 & weighted average of power level in col. 7, line 54 to col. 8, line 5] that said each one of said portion of said plurality of antennas is selected as said receiving antenna over a determined number of said received plurality of frames [repeating sampling packets for four times for each antenna col. 7, lines 49-53]; and

Shinoda [JP-20040007145] teaches the selection index value and selecting one or more candidate starting antennas by comparing each of said plurality of selection index values

[selecting antenna based on the index value V, to judge the antenna selection in paragraph 0005-00011; the index value is receiving intensity, or agc gain or error rate of thee received signal in paragraph 0010; & its description of first embodiment starting from paragraph 0014; memorizing index value V & comparing with threshold in paragraph 0020-0026], in order to judge the best reception antenna with the index value, field intensity, or agc gain or error rate.

Todd [US 6,118,773] teaches the selecting one or more candidate starting antennas by comparing values to a majority polling threshold value [comparing threshold 20, & increment hyteresis count step 440, & comparing hyteresis count with M, for the majority polling in Fig. 4b & its description in the specification], in order to reliably select one antenna with threshold & hysteresis count.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Chow whose telephone number is (571) 272-7889. The examiner can normally be reached on 8:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles Chow /C. C./
Examiner, Art Unit 2618
October 10, 2008.

/Edward Urban/

Supervisory Patent Examiner, Art Unit 2618